BARBARA RAE-VENTER

James M. Musser et al. Serial No. 08/160,965 Page 2

Page 33, line 19, please change "1PTG" to -IPTG--.

## IN THE CLAIMS:

6. (amended) A method of immunizing [humans] mammals against Streptococcus pyogenes infection, comprising:

administering the vaccine of claim 1 to [said] a mammal in an amount sufficient to confer immunity to a Streptococcus pyogenes infection.

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12. (amended) A method of immunizing humans against Streptococcus pyogenes infection, comprising:

administering the vaccine of claim 5 to [said] a human in an amount sufficient to confer immunity to a Streptococcus pyogenes infection.

## <u>REMARKS</u>

## The Present Invention

The claimed invention includes vaccines that protect mammals against Group A Streptococcus infection, and methods for vaccinating mammals using these vaccines. These vaccines contain a group A streptococcal cysteine protease, which confers protection against any Group A streptococcal infection. The invention overcomes major obstacles that had previously precluded development of a safe and effective vaccine against streptococcal infection, which continues to be a serious health threat.

## The Pending Claims

Prior to entry of the above amendments, claims 1 through 17 are pending. Claims 1 to 5 are directed to vaccines against group A streptococcal infection that comprise an S.